

Real National Output by Quarters—

A New Major Economic Indicator

QUARTERLY estimates of real, or "constant-dollar," gross national product and its broad components for the period 1950-58 are presented in this article, together with the corresponding current-dollar figures and the associated price indexes. They constitute a major additional tool for the analysis of current business developments. The new short-period information, which from now on will be published on the same schedule as the current-dollar GNP estimates, will permit an up-to-date analysis of quarterly movements in current-dollar production and sales, prices, and physical volumes in the framework of the national income and product accounts.

Quarterly estimates of real GNP have had top place among the suggestions for additional information which users of national income and product data have made to OBE during the past few years. OBE's experience in this regard was corroborated by the National Accounts Review Committee, which at the request of the Bureau of the Budget reported last year on the status of the National Economic Accounts of the United States. A canvass of user opinion made by this committee gave first priority to quarterly estimates of real gross national product, and the committee itself took a similar view of the importance of these figures.

New national income report

The estimates presented here are part of a new, comprehensive report on the national income, entitled *U. S. Income and Output*, which is now in press. In that report, the quarterly constant-dollar estimates are provided for all years beginning with 1947.

The forthcoming report includes a large volume of entirely new statistical information on the U. S. economy, and incorporates also the results of the 1954 industrial censuses and other new source materials into the postwar income and product estimates. The concepts and methods underlying the new and revised series are explained, and these estimates

are viewed in the perspective of the past work of the OBE and its plans for the future. A comprehensive review of the American economy during the postwar period is also provided.

U. S. Income and Output will not supersede the 1954 *National Income* supplement. The latter will remain the source of statistical series for the prewar and war years, as well as of comprehensive, detailed descriptions of the definitions and methodology underlying the U. S. national income accounts.

The number of statistical tables in *U. S. Income and Output* is approximately double that of the 1954 supplement. New information is provided on the total national output and its composition, and on the receipts and expenditures of the major markets into which national output flows: the consumer, government, and foreign markets, and the market for business investment goods.

Particularly noteworthy among the new tables—in addition to the quarterly constant-dollar GNP—are those relating to the following: GNP in current and constant dollars, broken down into durable and nondurable commodities, construction, and services; summary information on the size and regional distributions of consumer incomes; annual breakdowns of Federal and State and local government expenditures by type of public services provided; a changed treatment of foreign transactions, featuring a complete tie-in with the balance of payments statistics; and a study of investment and capital stocks in manufacturing.

Attention may be drawn to two general directions which the additional work incorporated in *U. S. Income and Output* has taken. First, the quarterly estimates necessary for the up-to-date analysis of current business developments have been greatly strengthened and expanded. Secondly, new constant-dollar information on total real GNP and its components has been developed on a substantial scale.

NEW VIEW OF THE ECONOMY

The work of the OBE in the field of constant-dollar estimates antedates the year 1951, when the first annual estimates of real GNP for the period beginning with 1929 were published. This information, which was the result of several years of basic research, was urgently needed for the study of inflationary and deflationary processes as well as of trends in the productivity of the national economy. It proved particularly timely for analysis and policy formation during the Korean conflict and was highly useful also in subsequent years.

The new quarterly information makes possible a more precise study of short-term business developments.

NOTE.—The new quarterly constant-dollar GNP data were prepared in the National Income Division of the Office of Business Economics. The following staff members contributed principally to the development of this basic market measure: Lawrence Gross, Edward O. Bassett, Carolyn G. Bernhard, Joseph Rosenthal, and Robert C. Wasson.

Table 1.—GNP and Final Purchases, Selected Quarters, 1955-57
(Seasonally adjusted at annual rate)

Quarter	GNP (billions of dollars)	Implicit price deflator (1957=100)	(Billions of 1957 dollars)		
			GNP	Inventory change	Final purchases
1955: IV.....	409	94	436	8	427
1956: IV.....	430	98	441	5	436
1957: I.....	439	99	442	1	441
II.....	441	100	443	3	440
III.....	445	101	442	2	440

Source: U. S. Department of Commerce, Office of Business Economics.

The general contour of these developments in the postwar period appears much the same in the new constant-dollar figures as in the current-dollar series which alone were available hitherto; and the broad interpretation of these developments is not basically altered. However, the new data sharpen the focus of the postwar economic picture, and for many purposes provide a more meaningful frame of reference.

This general proposition can be illustrated by reference to the recent business downturn and recovery.

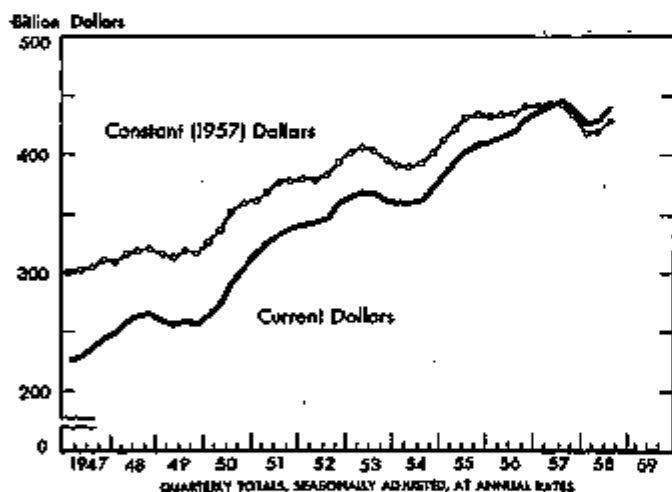
Dimensions of 1957-58 decline and recovery

The timing of the cyclical swing is about the same in both sets of data. Total economic activity began to decline in the autumn of 1957 and reached its trough in the first quarter of the current year. However, reflecting the continued rise in final product prices, the magnitude of the decline was somewhat less in current dollars than in real terms—4½ percent as against 5½ percent.

This latter decline exceeded the peak-to-trough movements of 2 percent and 4 percent in the physical volume of output during the 1948-49 and 1953-54 recessions.

As can be seen from table 4, all major components of GNP

Gross National Product in Current and Constant Dollars



U. S. Department of Commerce, Office of Business Economics

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reflected the continued updrift in prices from 1957 to 1958. Firmness in the general price level was a feature which the recent recession shared with the two previous postwar downturns, although overall GNP prices dipped somewhat in 1948-49. (See chart on page 24.)

The turnabout in GNP which occurred in 1958 was the quickest on record for the postwar period. The ensuing recovery appears vigorous in both current- and constant-dollar terms, but its proportions differ somewhat, by reference to the 1957 pre-recession peak, depending on which of these two bases of measurement is used.

In the third quarter of 1958, the current-dollar GNP had regained about two-thirds of its prior decline; in real volume terms, about two-fifths of the loss had been made good. It may be noted, incidentally, that much of the price rise that is reflected in the differences between the current- and constant-dollar movements occurred in the course of the business downturn; the 1958 recovery so far has proceeded in a setting

of overall price stability and has represented, in the main, gains in the real volume of production.

With business recovery continuing, the current-dollar GNP for the fourth quarter will exceed substantially the previous peak annual rate of \$446 billion set in the third quarter of 1957. In real terms national output will approximate the previous record.

For the year as a whole, current-dollar GNP will be about \$437 billion as compared with \$440 billion for the year 1957. In real volume terms, the difference will be somewhat larger—about 3 percent as compared with 1 percent.

Factors in recent business cycle

The general pattern of fall and recovery in the broad market demands for GNP as shown by the new constant-dollar data is similar to the one that emerges from the current-dollar data as analyzed in detail in last month's *SURVEY*. But once again the constant-dollar figures provide added depth to the view of economic developments. For instance, they put into clear focus the change in the tenor of business activity that preceded the decline in gross national product in the fourth quarter of 1957.

The constant-dollar figures bring out quite clearly that—following a prolonged period of expansion—the overall rate of final demand and GNP had ceased to grow further in real terms well before economic activity turned down in the fourth quarter of 1957. As can be seen from table 1, final purchases of GNP in terms of constant-dollars were about unchanged at an annual rate of around \$440 billion in the first three quarters of 1957.

The growth in total GNP—final purchases plus inventory change—had ceased somewhat earlier. This aggregate was stable in real terms over a four-quarter period preceding the autumn 1957 downturn. This stability was masked in the current-dollar figures by a rise in overall prices; the current-dollar GNP increasing by 3½ percent from a \$430 billion annual rate in the fourth quarter of 1956 to a \$446 billion peak in the third quarter of 1957.

This flattening in real GNP in the period immediately before the recession—by contrast to the further rise in prices and current-dollar values—was a key development both for the diagnosis of the business outlook and for economic policy formulation. The matching series on current- and constant-dollar GNP and prices given in tables 2, 3, and 4 provide a substantially better tool than has been available hitherto for the analysis of these developments.

It is of interest to note that a tapering in the advance of real output and demand similar to the one that preceded the 1957-58 downturn was in evidence also in the periods leading up to the two prior postwar recessions—those of 1948-49 and 1953-54. It is evident that this phenomenon not only has an important bearing upon the assessment of the strength of the basic demand factors, but that it also contributes to the understanding of inventory movements which to a large extent are influenced by developments in final demand.

The analysis of postwar business fluctuations included in *U. S. Income and Output* draws upon the new quarterly real GNP estimates to elaborate the above point, as well as to supplement in other respects the view provided by the current-dollar data.

NATURE OF NEW QUARTERLY DATA

Prior to a description of the methodology of the new quarterly estimates, brief note should be taken of a definitional change in two components of the gross national product. It extends to the current as well as the constant-dollar figures and is shown for the first time in this issue of the *SURVEY*.

The change stems from a new treatment of Government cash grants to foreign nations and affects—compensatingly—the Federal Government purchase component of GNP and the entry for international transactions. Total gross national product is not altered.

In the prior treatment, which originated in a period in which international aid was of negligible proportions, net Government cash grants to foreign nations were treated as though they represented Government purchases from abroad, and a counter-entry appeared in the foreign investment component of GNP (which reflected the excess of U. S. sales to abroad over U. S. purchases from abroad so defined). In the new presentation, Government cash grants are omitted altogether from the GNP statement.

Changes in terminology and classification reflecting this new treatment have been introduced. The entry for foreign transactions is now labeled "Net exports of goods and services" (with exports shown separately from imports in the current-dollar tables) and the breakdown of Federal purchases has been modified.¹

Cash grants now omitted from the main GNP table will appear as a new category of foreign transfer payments in the quarterly statements of Government and foreign transactions which will be a regular feature of the expanded reporting systems to which the new current- and constant-dollar quarterly GNP reports will be tied. "Net foreign investment" will be shown in the new statement of foreign transactions as the excess of exports over the sum of imports and Government cash grants to abroad—and also in the national saving-investment account.

Sources and methods

Like the annual constant-dollar series, which have been described in detail in the 1954 *National Income* supplement, the new quarterly estimates are derived principally by dividing the components of the current-dollar gross national product by appropriate price indexes, in as fine a product breakdown as practicable.

For consumer expenditures, which constitute about two-thirds of the total GNP, use is made mainly of price series which are components of the consumer price indexes of the Bureau of Labor Statistics, and of the series on prices paid by farmers prepared by the U. S. Department of Agriculture. These two sets of data are combined to give representation to prices paid by both urban and rural purchasers.

For private domestic investment, the deflated series on new construction are prepared by the Business and Defense Services Administration of the Department of Commerce, and are based largely on construction cost indexes compiled by private and Government agencies. For GNP purposes, an adjustment for changing profits margins is introduced, to convert these cost indexes to the selling price level that is reflected in the current-dollar estimates of new construction.

The major data sources used for deflating producers' purchases of durable equipment are the BLS wholesale price indexes and the IOC indexes of prices of railroad equipment; and the BLS wholesale price indexes are also the principal source of information used for deflating the change in business inventories.

1. Federal purchases were shown as consisting of "national security" and "other" purchases (net of Government sales). National security purchases were broken down into "national defense" and "other national security." In the implementation of the new treatment of international cash grants the category of "other national security" purchases, which consisted mainly of such grants, has been dropped. The definition of the national defense item is unchanged and items other than cash grants formerly included in "other" national security purchases, such as foreign aid in kind and the administrative expenses of the State Department, the U. S. Information Service, and the U. S. Maritime Commission, are now included with "other" Federal purchases.

For exports and imports, major reliance is on indexes of unit values for merchandise exports and imports prepared by the Bureau of Foreign Commerce of the Department of Commerce.

Finally, the principal sources of price information for the deflation of government purchases are the BLS wholesale price indexes and the construction cost indexes of the Business and Defense Services Administration to which reference has already been made.

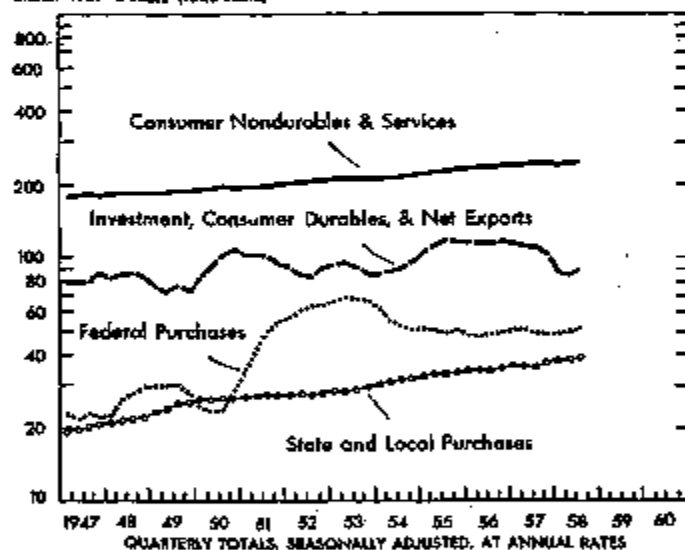
In carrying out the deflation of the seasonally adjusted current-dollar figures on a quarterly basis, about 100 product groups were distinguished separately, and several times as many price indexes drawn from the BLS and other sources referred to above were combined to deflate these current-dollar series. The results so obtained were adjusted to the annual constant-dollar figures, which are prepared in an even finer breakdown.

In the course of the work it was found that in a great many instances the quarterly price indexes displayed regularly recurring seasonal patterns of an appreciable magnitude. Accordingly, a substantial part of the statistical effort expended on the project went into the elimination of seasonal variations from the price series used.

Gross National Product in Constant Dollars

Quarterly fluctuations in major markets differ widely

Billion 1957 Dollars (ratio series)



U. S. Department of Commerce, Office of Business Economics

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The detailed deflation work was done in terms of 1954 prices, and constant-dollar estimates expressed in prices of that year will be given in *U. S. Income and Output*. Inasmuch as recent price levels are more familiar, these basic estimates were converted into 1957 prices for presentation in this article. In general, the conversion was made separately for each of the published components of GNP. More detailed breakdowns were used in instances in which these components had undergone significant shifts in product composition.

Characteristics of new series

In view of the fact that the quarterly real GNP is a new series which will be employed widely, it is important to draw attention of users to its principal characteristics.

Table 2.—Gross National Product or Expenditure, Seasonally Adjusted Quarterly Totals at Annual Rates, 1950-57, and First Three Quarters, 1958

[Billions of dollars]

Line		1950					1951					1952				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	255.8	274.4	282.3	304.3	284.6	317.9	326.4	333.5	335.1	329.9	341.0	341.3	347.0	358.6	347.4
2	Personal consumption expenditures.....	185.7	188.9	184.3	200.1	195.0	211.5	205.5	208.8	213.4	209.1	213.5	217.7	212.8	227.2	219.9
3	Durable goods.....	21.8	27.9	31.5	31.2	30.4	33.0	28.0	28.5	28.4	29.4	27.7	26.1	27.5	32.1	29.1
4	Nondurable goods.....	96.3	97.7	103.3	102.0	99.8	110.2	108.1	108.5	112.7	110.1	113.3	115.9	115.9	117.2	115.1
5	Services.....	62.6	64.3	65.7	66.9	64.9	68.3	69.4	70.8	72.3	70.2	73.8	74.7	75.2	77.9	75.6
6	Gross private domestic investment.....	29.9	45.9	51.1	48.4	39.0	55.9	61.5	58.3	51.0	54.3	52.2	45.4	49.1	52.6	49.3
7	New construction.....	21.6	23.6	24.6	23.3	24.2	25.7	25.0	24.5	24.5	24.5	25.2	23.4	25.4	26.1	25.5
8	Residential nonfarm.....	12.9	13.8	13.4	14.4	14.1	14.1	12.5	11.5	12.1	12.6	12.4	12.7	12.8	13.4	12.8
9	Other.....	9.4	9.8	10.3	10.9	10.1	11.6	12.5	12.7	12.4	12.2	12.8	12.7	12.6	12.7	12.7
10	Producers' durable equipment.....	15.7	18.4	20.8	21.1	13.9	21.3	21.0	21.6	21.6	21.2	21.9	22.4	18.4	21.2	21.2
11	Change in business inventories—total.....	3.5	4.9	4.9	15.0	6.8	10.5	15.2	10.2	4.9	10.2	5.1	-2.2	4.3	1.5	2.1
12	Nonfarm only.....	2.2	4.2	3.8	13.8	6.0	8.3	14.0	1.1	8.8	9.1	4.0	-3.3	3.4	4.7	2.1
13	Net exports of goods and services.....	3.0	1.1	-1.6	-1.2	-1.6	-1.2	1.7	1.9	4.2	2.4	3.1	2.3	1.1	-1.7	1.3
14	Exports.....	12.5	12.4	13.4	14.2	13.1	15.9	17.7	18.9	18.9	17.9	19.0	18.3	16.0	18.4	17.4
15	Imports.....	10.5	11.2	14.0	14.4	12.5	15.1	16.0	14.6	14.6	15.5	15.9	16.2	16.9	17.1	16.1
16	Government purchases of goods and services.....	38.4	36.5	38.2	42.0	39.0	49.5	57.7	64.9	69.5	64.5	71.1	73.2	78.2	78.5	76.4
17	Federal.....	19.1	17.2	18.4	22.7	19.2	29.3	36.1	43.9	47.4	43.6	48.0	48.1	55.4	55.5	52.9
18	National defense.....	12.6	12.0	14.1	15.2	14.3	24.3	31.9	33.1	41.3	37.9	43.0	46.2	47.0	49.3	46.4
19	Other.....	6.6	5.2	4.2	7.5	4.9	4.5	5.1	3.3	6.0	5.2	5.8	4.2	6.1	6.7	6.7
20	Less: Government sales.....	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
21	State and local.....	16.3	19.3	19.6	20.8	19.7	20.9	21.6	21.9	22.1	21.7	22.5	24.1	26.3	23.7	23.3

Line		1953					1954					1955				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	344.5	388.8	387.1	381.9	385.4	390.0	388.9	382.0	379.5	369.1	344.3	353.0	403.4	408.9	397.5
2	Personal consumption expenditures.....	250.9	283.3	274.1	272.3	281.6	279.7	276.6	272.7	263.2	258.6	249.4	254.3	290.3	283.3	268.9
3	Durable goods.....	38.2	33.4	33.6	31.2	32.9	31.2	32.2	32.3	33.9	32.4	32.2	32.1	41.4	39.8	38.0
4	Nondurable goods.....	118.1	118.5	117.8	117.4	117.9	119.5	119.5	119.6	121.0	118.5	121.2	123.7	125.1	123.1	124.4
5	Services.....	79.6	81.2	82.8	83.7	81.8	84.8	85.5	86.9	88.3	86.3	90.0	91.8	93.4	95.3	92.5
6	Gross private domestic investment.....	52.0	52.9	51.1	45.2	50.3	48.5	47.2	43.8	52.3	48.9	53.8	55.1	65.4	67.6	63.8
7	New construction.....	25.9	27.8	27.7	27.9	27.6	27.8	28.9	30.2	31.6	29.7	33.9	34.9	35.4	35.4	34.6
8	Residential nonfarm.....	13.7	14.0	13.8	13.7	13.6	13.7	14.7	15.6	17.0	15.4	15.6	15.9	13.9	13.4	13.7
9	Other.....	12.2	13.8	13.9	14.2	13.8	14.1	14.2	14.6	14.6	14.3	15.4	16.0	14.6	14.0	15.2
10	Producers' durable equipment.....	22.5	23.0	22.9	21.9	22.3	24.4	20.9	20.7	19.9	20.8	20.5	22.1	24.4	25.4	23.1
11	Change in business inventories—total.....	2.5	8.1	7.7	-4.3	4.4	-2.0	-3.7	-2.1	8.8	-1.6	4.4	6.1	5.7	6.7	5.8
12	Nonfarm only.....	3.0	4.0	1.5	-4.3	1.1	-2.8	-3.2	-2.8	1.2	-2.1	3.5	5.7	5.5	6.7	5.0
13	Net exports of goods and services.....	-1.3	-1.7	-1.8	-1.9	-1.4	-1.3	-1.8	-1.4	2.3	1.0	1.5	7.7	1.8	1.3	1.1
14	Exports.....	16.0	16.5	16.7	16.7	16.6	16.0	17.9	17.3	18.7	17.5	18.7	18.6	20.0	20.3	19.4
15	Imports.....	16.7	17.3	17.5	18.7	17.0	17.3	17.1	18.8	16.5	16.5	17.2	17.9	18.7	19.4	18.3
16	Government purchases of goods and services.....	81.8	83.3	82.7	82.5	82.8	79.4	74.4	74.1	75.0	75.3	74.5	74.9	75.8	77.1	75.4
17	Federal.....	57.4	58.9	57.7	57.8	58.0	62.9	47.1	45.9	44.4	47.5	45.1	44.7	45.3	48.1	45.3
18	National defense.....	46.8	40.5	43.3	47.6	49.3	44.3	41.5	40.0	38.4	41.2	39.2	38.8	39.2	39.1	39.1
19	Other.....	10.0	8.7	8.7	10.5	8.0	8.4	5.9	6.2	6.2	6.7	5.2	6.2	6.5	7.4	6.6
20	Less: Government sales.....	-4.4	-3.3	-3.3	-2.8	-2.8	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3	-3.3
21	State and local.....	34.4	34.8	24.9	25.7	24.9	20.6	27.3	29.3	30.7	27.7	29.5	30.2	30.6	31.0	31.2

Line		1956					1957					1958				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	410.8	414.9	420.5	430.5	419.2	430.3	441.3	445.4	438.9	440.3	435.9	429.0	439.0	449.0	449.0
2	Personal consumption expenditures.....	285.2	287.2	289.7	275.4	289.4	278.8	282.5	284.3	287.2	284.4	286.2	282.3	291.5	291.5	291.5
3	Durable goods.....	38.7	37.8	37.5	35.5	36.4	40.2	39.5	40.4	39.5	39.5	39.3	35.6	36.1	36.1	36.1
4	Nondurable goods.....	122.9	130.9	131.6	135.4	131.4	135.6	137.1	136.6	136.8	138.0	139.8	141.2	142.9	142.9	142.9
5	Services.....	96.9	98.6	100.6	102.5	99.6	104.1	106.9	107.4	105.7	105.7	110.1	111.3	112.5	112.5	112.5
6	Gross private domestic investment.....	58.0	57.7	55.1	58.3	58.3	55.9	57.9	56.7	61.5	57.3	49.6	49.2	52.7	52.7	52.7
7	New construction.....	35.2	34.8	33.8	36.2	35.7	34.1	35.1	34.8	37.1	36.5	36.3	34.9	35.3	35.3	35.3
8	Residential nonfarm.....	17.8	17.7	17.6	17.7	17.7	17.2	16.5	15.9	17.6	17.6	17.1	16.2	17.9	17.9	17.9
9	Other.....	17.4	18.1	18.3	18.4	18.1	18.9	19.0	19.7	19.5	19.5	18.3	18.7	18.4	18.4	18.4
10	Producers' durable equipment.....	23.9	26.0	27.3	28.2	27.0	26.7	26.1	26.0	26.7	27.9	22.9	22.8	22.3	22.3	22.3
11	Change in business inventories—total.....	6.9	5.4	4.9	4.4	5.4	1.1	2.9	2.2	-2.3	1.0	-9.5	-8.0	-5.0	-5.0	-5.0
12	Nonfarm only.....	7.4	6.2	4.3	4.0	5.9	1.6	2.0	1.3	-3.1	1.2	-9.8	-7.8	-5.4	-5.4	-5.4
13	Net exports of goods and services.....	1.8	2.6	3.2	4.4	2.8	5.6	6.0	4.8	3.3	4.3	1.7	1.7	1.7	1.7	1.7
14	Exports.....	20.9	22.5	23.6	24.6	23.0	26.4	26.9	26.9	24.9	26.0	21.9	22.4	22.9	22.9	22.9
15	Imports.....	20.1	19.8	20.4	20.4	20.2	20.8	20.9	21.2	21.6	21.0	20.2	20.8	21.2	21.2	21.2
16	Government purchases of goods and services.....	75.8	77.2	75.5	81.0	78.6	85.0	85.7	85.5	86.9	86.7	84.3	84.7	85.9	85.9	85.9
17	Federal.....	44.5	44.5	45.1	47.5	46.7	49.1	48.7	48.7	49.1	49.4	48.3	50.7	52.2	52.2	52.2
18	National defense.....	39.1	39.1	41.0	42.1	40.3	43.7	44.9	44.9	43.9	43.9	43.7	44.1	44.5	44.5	44.5
19	Other.....	5.1	5.7	5.4	5.7	5.7	5.8	5.1	5.2	5.7	5.5	6.3	6.9	6.9	6.9	6.9
20	Less: Government sales.....	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
21	State and local.....	33.0	33.7	33.4	34.4	33.1	35.9	36.0	36.1	37.8	36.3	38.6	39.1	39.9	39.9	39.9

Source: U. S. Department of Commerce, Office of Business Economics.

Table 3.—Gross National Product, Seasonally Adjusted Quarterly Totals at Annual Rates, in Constant Dollars, 1950-57, and First Three Quarters, 1958

(Billions of 1957 dollars)

Line		1950					1951					1952				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	325.7	336.7	351.2	358.4	343.4	361.2	360.0	376.2	376.9	379.7	378.6	379.5	383.1	393.7	394.1
2	Personal consumption expenditures.....	221.5	226.3	237.2	228.3	228.1	233.6	226.7	228.0	231.3	229.9	231.4	234.3	238.3	242.2	235.6
3	Durable goods.....	90.4	81.2	89.1	83.7	83.6	84.6	89.1	89.4	89.6	89.6	89.7	89.7	89.2	83.0	86.6
4	Nondurable goods.....	112.2	115.3	118.4	112.4	113.6	118.5	113.6	115.3	117.2	115.6	117.7	118.7	120.4	121.4	113.6
5	Services.....	79.0	80.8	81.7	82.1	80.9	82.7	89.1	84.1	84.0	83.7	83.5	86.9	86.9	87.8	86.6
6	Gross private domestic investment.....	52.4	60.7	63.6	74.7	68.1	66.8	71.0	65.0	69.3	65.5	68.1	62.4	66.1	60.3	67.3
7	New construction.....	28.5	30.6	31.8	31.5	30.5	31.1	29.6	35.9	28.6	29.4	32.0	29.1	29.0	29.9	29.3
8	Residential nonfarm.....	16.5	17.0	18.2	16.9	17.1	16.8	14.2	13.3	13.4	14.2	13.6	13.9	14.0	14.7	14.1
9	Other.....	13.0	13.6	13.6	14.5	13.7	14.3	15.4	15.6	15.6	15.3	15.4	15.2	15.0	15.2	15.2
10	Producers' durable equipment.....	31.1	24.5	26.7	26.4	24.6	24.0	25.5	26.9	26.7	26.0	26.0	26.6	23.2	25.2	26.3
11	Change in business inventories—total.....	2.8	5.8	5.3	15.3	7.6	10.3	11.0	10.9	5.0	10.7	3.0	-2.6	4.0	5.3	2.8
12	Nonfarm only.....	2.6	5.1	4.4	13.9	7.6	10.0	11.2	10.3	4.5	10.0	4.6	-2.6	3.6	5.0	2.4
13	Net exports of goods and services.....	1.9	4.2	-1.1	.4	.8	.5	2.5	4.4	4.4	1.0	4.2	3.5	.4	-1.8	1.9
14	Government purchases of goods and services.....	56.2	48.5	50.3	55.1	51.4	53.9	49.9	47.3	52.8	42.3	54.4	59.1	51.2	51.7	59.0
15	Federal.....	24.3	22.1	22.9	28.6	25.0	32.2	32.7	30.1	34.8	45.2	54.7	61.6	53.8	53.9	61.5
16	State and local.....	28.5	26.4	29.5	26.3	26.3	26.7	27.1	27.2	27.1	27.0	27.3	27.6	27.4	27.8	27.5

Line		1953					1954					1955				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	401.3	406.1	402.7	393.3	401.5	391.4	394.9	392.5	400.5	393.9	413.3	422.9	420.5	434.7	425.1
2	Personal consumption expenditures.....	246.2	246.5	245.3	244.3	245.3	245.6	246.3	241.5	250.9	250.4	241.7	246.2	273.4	275.4	269.4
3	Durable goods.....	84.6	85.1	85.2	83.6	84.6	84.7	84.7	83.9	86.4	83.0	82.7	80.9	83.4	81.8	81.4
4	Nondurable goods.....	122.0	123.9	122.8	122.4	123.0	122.1	123.4	123.6	123.4	123.1	123.6	120.2	121.6	124.1	120.4
5	Services.....	89.7	89.5	90.1	90.3	89.0	90.9	91.7	93.0	94.1	92.4	95.6	95.8	98.2	99.5	87.5
6	Gross private domestic investment.....	60.1	60.5	59.3	62.2	60.8	52.5	51.7	55.6	59.3	55.7	66.2	79.4	73.4	73.6	70.8
7	New construction.....	30.0	31.1	31.3	31.4	31.1	31.6	32.6	34.0	35.5	33.3	27.7	32.3	29.5	33.0	32.2
8	Residential nonfarm.....	15.0	15.2	14.9	14.3	15.0	15.1	16.9	17.4	18.6	18.9	21.1	20.4	20.0	19.3	20.0
9	Other.....	15.0	15.9	18.3	18.6	16.1	16.5	16.8	18.4	18.9	18.8	17.6	17.9	18.5	18.7	18.2
10	Producers' durable equipment.....	28.7	28.7	23.2	25.7	25.1	24.0	24.3	24.0	26.1	24.1	22.5	23.2	27.6	28.2	26.1
11	Change in business inventories—total.....	2.8	3.7	.9	-4.9	.6	-2.9	-3.3	-2.4	.8	-1.9	5.0	7.0	0.5	7.7	8.5
12	Nonfarm only.....	3.4	4.5	1.6	-4.7	1.2	-3.0	-3.6	-3.0	.2	-2.4	4.2	6.3	5.9	7.2	5.9
13	Net exports of goods and services.....	-3	-5	-6	.3	-3	.5	1.5	1.2	3.0	1.7	2.9	1.1	1.6	1.4	1.7
14	Government purchases of goods and services.....	95.1	97.6	96.8	97.3	95.7	91.6	86.6	84.2	81.5	86.1	84.8	83.5	82.9	84.0	83.6
15	Federal.....	56.9	57.3	58.0	67.3	68.0	61.4	53.1	52.6	50.7	55.0	51.2	50.2	49.6	50.4	50.2
16	State and local.....	28.3	29.3	29.3	29.5	28.7	30.3	30.9	31.6	21.8	31.1	22.8	23.4	33.4	33.6	33.2

Line		1956					1957					1958				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	433.2	434.1	435.2	440.9	436.0	441.6	442.8	443.4	444.1	440.3	418.0	419.9	428.3	.....	.....
2	Personal consumption expenditures.....	275.4	276.5	278.5	280.5	277.5	282.5	283.3	287.2	284.6	284.4	280.7	281.5	284.7	.....	.....
3	Durable goods.....	40.6	39.3	39.0	40.2	39.0	40.5	39.5	40.3	39.4	39.0	38.3	35.5	35.8	.....	.....
4	Nondurable goods.....	135.2	134.0	134.0	135.0	135.4	136.8	137.0	139.8	137.7	138.0	136.3	137.7	138.9	.....	.....
5	Services.....	200.6	200.7	208.1	204.3	202.4	205.2	205.4	207.1	207.5	206.5	197.7	198.3	209.0	.....	.....
6	Gross private domestic investment.....	73.4	71.7	71.5	70.9	71.8	67.1	67.9	65.9	61.1	66.3	49.4	48.5	52.7	.....	.....
7	New construction.....	37.4	30.9	30.0	30.9	37.0	36.2	36.0	30.3	36.7	36.3	35.7	34.2	33.7	.....	.....
8	Residential nonfarm.....	18.6	18.0	17.7	17.9	18.0	17.3	16.5	16.8	17.5	17.0	17.0	16.2	17.3	.....	.....
9	Other.....	18.0	19.9	19.1	19.0	19.0	18.6	19.5	19.5	18.2	19.3	18.7	18.0	17.9	.....	.....
10	Producers' durable equipment.....	23.3	23.1	23.0	20.1	23.7	20.1	20.2	27.8	26.3	27.9	22.4	21.8	21.8	.....	.....
11	Change in business inventories—total.....	7.7	4.2	5.8	4.6	6.2	1.1	2.8	1.8	-1.9	1.0	-8.7	-7.5	-4.3	.....	.....
12	Nonfarm only.....	7.7	6.6	5.7	4.7	6.2	.6	1.9	.9	-2.7	.2	-8.8	-7.6	-6.2	.....	.....
13	Net exports of goods and services.....	1.0	2.3	3.7	4.9	3.4	5.7	6.3	4.7	3.0	4.9	1.1	1.1	1.3	.....	.....
14	Government purchases of goods and services.....	82.3	82.4	83.6	84.6	83.2	86.3	84.1	84.6	85.4	86.7	84.7	87.8	88.5	.....	.....
15	Federal.....	48.1	48.0	48.0	49.3	48.9	50.2	50.2	48.9	48.3	49.4	48.9	49.6	50.9	.....	.....
16	State and local.....	34.2	34.5	34.6	35.2	34.7	36.1	35.9	35.7	37.1	37.3	37.8	38.0	38.7	.....	.....

Source: U. S. Department of Commerce, Office of Business Economics.

Table 4.—Implicit Price Deflators for Seasonally Adjusted Quarterly Gross National Product or Expenditure, 1950-57, and First Three Quarters, 1958

(Index Numbers 1957=100)

Line		1950					1951					1952				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	81.4	81.5	82.5	82.9	82.9	86.0	88.5	88.7	88.7	88.8	89.8	89.9	90.5	91.1	90.3
2	Personal consumption expenditures.....	83.8	84.3	85.2	85.7	85.5	90.5	91.0	91.2	92.5	91.3	92.7	92.9	93.3	93.5	93.2
3	Durable goods.....	88.3	89.3	90.7	92.6	90.3	96.5	96.2	96.9	97.7	96.5	98.1	98.0	97.8	97.2	97.6
4	Nondurable goods.....	85.8	86.2	86.7	87.7	87.9	94.6	95.2	95.0	95.1	95.2	96.3	96.0	96.2	96.5	96.3
5	Services.....	79.2	79.8	80.4	81.5	80.2	82.6	83.5	84.1	85.1	83.8	86.1	86.9	87.8	88.7	87.4
6	Gross private domestic investment.....															
7	New construction.....	75.9	77.1	80.5	80.4	78.6	82.7	84.5	84.8	85.9	84.4	86.8	87.3	87.4	87.2	87.2
8	Residential nonfarm.....	79.0	81.3	84.4	84.9	82.5	86.3	88.3	88.9	90.5	88.5	91.2	91.1	91.3	90.9	91.1
9	Other.....	72.2	71.9	78.3	75.2	78.7	78.5	81.0	81.2	81.8	80.6	82.8	83.3	83.8	83.6	83.5
10	Producers' durable equipment.....	74.8	74.2	77.1	78.9	76.8	83.1	83.7	83.7	83.8	83.6	84.2	84.5	84.0	84.1	84.2
11	Change in business inventories.....															
12	Net exports of goods and services.....															
13	Government purchases of goods and services.....	76.6	73.6	78.8	78.2	75.9	82.6	82.6	83.9	84.9	81.7	84.4	84.4	85.8	86.7	83.4
14	Federal.....	78.3	74.5	77.1	78.5	77.5	86.2	84.5	85.8	86.4	83.7	85.6	84.7	86.2	87.3	80.9
15	State and local.....	72.8	73.1	74.7	78.7	74.8	78.2	79.6	80.6	81.7	80.2	82.6	83.6	84.9	85.3	84.8

Line		1953					1954					1955				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	IV	Year
1	Gross national product.....	90.8	90.8	91.2	91.2	91.0	92.8	92.8	92.2	92.5	92.3	92.8	93.1	93.7	94.1	93.4
2	Personal consumption expenditures.....	93.5	93.8	94.3	94.3	94.1	95.1	95.1	94.9	95.0	95.0	95.3	95.3	95.4	95.6	95.4
3	Durable goods.....	98.0	98.3	98.3	98.0	98.0	98.6	98.4	98.2	98.6	98.5	98.6	98.6	98.4	98.2	98.6
4	Nondurable goods.....	90.1	90.7	90.9	90.9	90.9	90.6	90.3	90.0	90.7	90.2	90.8	90.6	90.7	90.6	90.7
5	Services.....	89.8	90.7	91.8	92.7	91.3	93.0	93.3	93.4	93.5	93.4	94.1	94.6	95.1	95.5	94.9
6	Gross private domestic investment.....															
7	New construction.....	87.9	89.1	89.0	88.8	88.7	88.4	88.6	88.7	89.1	88.7	89.8	91.2	92.0	92.2	91.8
8	Residential nonfarm.....	91.4	92.0	92.3	92.0	92.0	91.3	90.2	90.7	91.1	90.5	91.6	93.0	94.2	93.8	93.6
9	Other.....	84.2	86.4	85.8	85.8	85.8	85.7	87.1	86.7	86.5	86.4	87.9	89.2	89.5	91.0	88.4
10	Producers' durable equipment.....	84.4	85.7	86.4	85.6	85.5	88.2	88.4	88.4	88.4	88.4	87.3	87.9	88.7	88.1	88.5
11	Change in business inventories.....															
12	Net exports of goods and services.....															
13	Government purchases of goods and services.....	86.4	85.4	85.4	85.3	85.7	86.5	86.5	86.0	86.8	87.4	88.8	89.6	91.4	91.8	90.4
14	Federal.....	85.8	85.0	84.9	85.3	85.2	90.1	86.4	87.2	87.5	86.5	88.1	89.1	91.4	91.6	90.0
15	State and local.....	88.5	89.3	89.7	87.2	88.7	87.8	88.4	85.3	90.1	89.0	90.1	90.4	91.5	92.4	92.2

Line		1956					1957					1958				
		I	II	III	IV	Year	I	II	III	IV	Year	I	II	III	III	Year
1	Gross national product.....	94.8	95.6	96.6	97.6	96.2	98.8	99.6	100.7	101.1	100.0	101.9	102.4	102.5		
2	Personal consumption expenditures.....	98.9	98.8	97.6	98.2	97.1	99.0	98.7	100.4	100.8	100.0	101.9	102.4	102.4		
3	Durable goods.....	95.3	96.1	97.3	98.4	96.8	99.1	100.0	100.2	100.5	100.0	102.1	102.6	102.6		
4	Nondurable goods.....	95.9	96.6	97.6	98.1	97.0	99.0	99.6	100.8	100.8	100.0	102.2	102.6	102.2		
5	Services.....	90.2	90.9	91.6	92.2	91.3	99.0	99.6	100.3	101.2	100.0	102.2	102.8	103.1		
6	Gross private domestic investment.....															
7	New construction.....	94.1	97.0	97.3	98.0	96.6	97.9	100.2	100.8	101.2	100.0	101.7	101.9	101.6		
8	Residential nonfarm.....	98.3	95.3	98.9	99.2	98.2	99.1	99.9	100.7	100.3	100.0	100.3	100.1	100.6		
9	Other.....	92.0	95.7	95.6	97.0	95.1	98.9	100.4	100.9	101.9	100.0	102.3	102.5	102.5		
10	Producers' durable equipment.....	91.6	93.4	94.6	96.9	94.1	98.6	99.6	100.4	101.4	100.0	101.9	102.5	102.7		
11	Change in business inventories.....															
12	Net exports of goods and services.....															
13	Government purchases of goods and services.....	93.3	93.5	93.3	96.9	94.7	96.6	99.6	101.4	101.8	100.0	101.8	102.2	102.7		
14	Federal.....	93.2	92.6	94.4	98.2	94.1	97.9	99.0	101.5	101.6	100.0	101.5	101.6	102.5		
15	State and local.....	93.4	94.7	94.4	97.6	95.8	99.4	100.3	101.1	102.0	100.0	102.2	102.9	103.1		

Source: U. S. Department of Commerce, Office of Business Economics.

(Text continued on page 24)

theless, higher prices raised values by \$28 million in the more recent period.

Faced by autos, imports of finished (nonfood) consumer goods in 1958 continued their long-term upward movement, but at a diminished rate. For the first time since 1954 this rate is now moving about parallel to the rate of growth in disposable personal income in contrast to its much steeper advance in preceding years. Scattered losses during the current year in imports of diamonds and other precious stones, clocks and watches, and wool manufactures partly offset the gain in imports of passenger cars.

The value of passenger car imports in the first 9 months

of the year scored a \$136 million gain over the corresponding period of 1957. The number of units arriving in January-August exceeded the record established for the entire year 1957 and, with domestic auto output at a subdued rate, European car manufacturers carved out a 7½ percent share of the total new car market in the United States. This represented an impressive gain over the 3 percent share in January-August 1957.

Imports of farm machinery, mainly combines and other harvesting equipment also rose substantially—principally from Canada and the United Kingdom—spurred by record crops and rising farm income in 1958.

Real National Output by Quarters—Continued from page 15

First, undue significance should not be attached to small, irregular changes shown by these quarterly constant-dollar measures of GNP and its main components. While inevitable imprecisions in the basic data preclude meaningful interpretations of these estimates to the last decimal, as it were, they can be taken as valid indicators of real volume changes which are of significant magnitude or which fall into pattern, either in terms of this body of data itself or when studied in relation to other economic variables.

For example, for several quarters preceding the business downturn in the autumn of 1957, the estimates of total real GNP showed small changes to which no precise significance should be accorded. However, they did convey the important fact, as already noted, that total real output was approximately stable during this prerecession interval when current-dollar output was still rising.

A second, closely related, point is that these new real volume data and the associated price indexes are not sufficiently accurate for any exact assessment of the relative contributions of the price and volume factors to the quarter-to-quarter changes in the market value of GNP.

The price and current-dollar value data are statistically independent. The price data are not ordinarily subject to substantial revisions even though they are not entirely satisfactory for the deflation of GNP. In practice, therefore, statistical revisions in the current-dollar GNP series tend to be reflected very largely in the real volume measure.

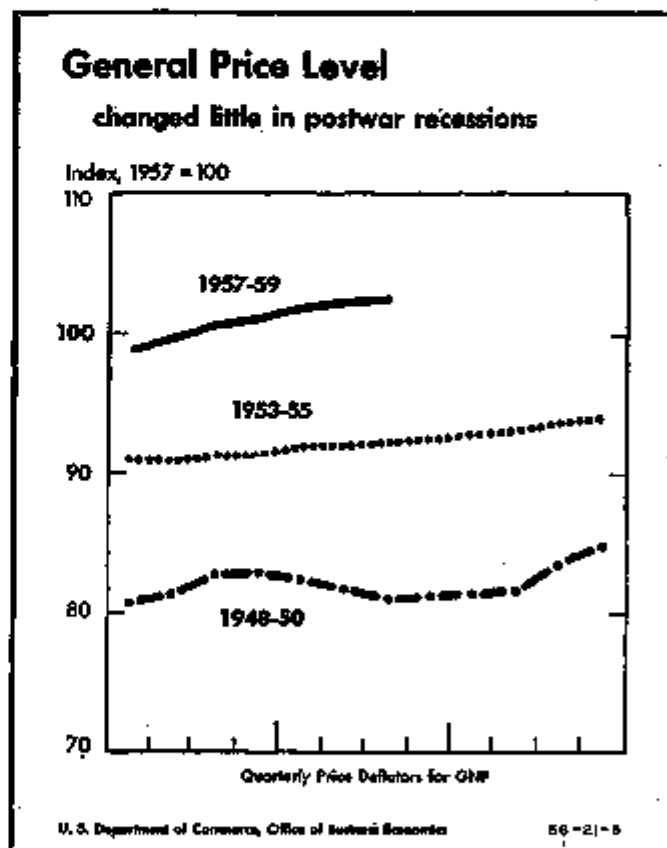
Suppose, for instance, that the initial estimates for a given quarter show a rise from \$400 billion to \$404 billion, or 1 percent in the annual rate of current-dollar GNP, and an increase of ½ percent in overall prices. Price and real volume thus appear of equal importance in accounting for the change in the current-dollar value of national production. If subsequently a downward revision of \$1 billion, or ¼ of 1 percent, occurs in the GNP this will show up almost entirely in the real-volume change and the indicated importance of this change will decline from one-half to one-third.

A further, perhaps even stronger, caveat should be entered with respect to any attempt to use these quarterly constant-dollar estimates in productivity analysis. The margin of error attributable to the output estimates, when combined with that in the available man-hour data, renders judgment on this score extremely hazardous. Even the preliminary annual estimates of real output which are customarily published each February in the *Survey* have supported only the most tentative comments in this connection.

The major reasons why constant-dollar estimates of GNP, valuable as they are, are subject to certain particular limitations have been set forth in the 1954 *National Income* supplement, in connection with the annual series. There, attention was called to the shortcomings of price deflation. These stem from the lack of price information directly applicable to many components of the current-dollar product flow; from the fact that, generally speaking, available price information cannot take adequate account of premiums,

discounts, and bargain sales; and from even more basic problems encountered in pricing items subject to significant quality change, or whose physical units are not clearly definable for other reasons.

The quarterly constant-dollar figures are affected, in different degrees, by these same difficulties. On balance, the price information available on a quarterly basis—particularly for the most current period—is somewhat weaker than that underlying the annual estimates.



In addition, certain special problems are encountered in the estimates of quarterly current-dollar GNP from which the constant-dollar measure is derived. These estimating problems make it all the more necessary to interpret movements in the new quarterly constant-dollar GNP series only in broad terms, without paying undue attention to the small and irregular fluctuations which it may display from quarter to quarter.

When used with an awareness of their characteristics, the new quarterly series on GNP volume and prices will provide additional valuable guides to economic understanding.